

REMARKS

Claims 1-29 are pending in this application and are subject to examination. In the Office Action mailed March 24, 2006, claims 9 and 22 were objected to, claims 1-29 were rejected under 35 U.S.C. §101, and claims 1-29 were rejected under 35 U.S.C. §103(a). By this Response, claims 9 and 22 have been amended.

Objection to the Claims

Claims 9 and 22 have been objected to due to certain informalities. By this Response, claims 9 and 22 have been amended. In light of the amendments to the claims, withdrawal of the objection is respectfully requested.

Claim Rejections-35 U.S.C. §101

Claims 1-29 stand rejected under 35 U.S.C. §101 as failing to produce a useful, concrete, and tangible result. This rejection is respectfully traversed, as follows.

The courts have held that "transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result' -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601.

Claim 1 is directed to a method for processing a program statement in a database query language. Claim 1 recites the limitation "outputting the output results to a data stream." Similarly to *State Street*, the invention of claim 1 therefore includes "transformation of data." The invention of claim 1 "constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result,'" in this case an output stream that is the

result of processing a program statement. Because the invention of claim 1 produces a “useful, concrete, and tangible result,” claim 1 is patentable under 35 U.S.C. §101.

Claims 15 and 26-29 recite similar language to claim 1 and are patentable for similar reasons to those discussed above with reference to claim 1. Claims 2-14 and 16-25 are dependent on independent claim 1 and 15, respectively, and are patentable for at least those reasons discussed above with reference to the independent claims. Therefore, withdrawal of the rejection of 35 U.S.C. §101 is respectfully requested.

Claim Rejections-35 U.S.C. §103

Claims 1-29 stand rejected under 35 U.S.C. §103 as being unpatentable over “Xquery from the Experts: A Guide to the W3C XML Query Language,” ISBN: 0-321-18060-7, by Katz, et al. (“Katz”), in view of U.S. Patent Publication No. 20040068487 too Barton, et al. (“Barton”).

The Katz reference is listed by www.amazon.com as being published in the first edition on September 12, 2003. It is noted that the filing date of the present application is September 9, 2003. As the filing date of the present application predates the publication date of the Katz reference, the Katz reference may not be considered prior art under 35 U.S.C. §102, and withdrawal of the rejection is respectfully requested.

However, even if the Katz reference is considered to be prior art, claim 1 is patentable over the cited art. Claim 1 is directed to a method for processing a program statement in a database query language, the program statement corresponding to a plurality of operators, wherein an operator tree can be identified based upon the plurality of operators, the operator tree comprising a parent operator node, the parent operator node possibly associated with one or more child operator nodes. The method includes (a) identifying whether one or more child nodes exist, and, (b) for each of the

identified one or more child nodes, determining if the child node relates to an operator for which top-down processing can be performed. The method further includes (c) calling and executing the operators from (a) for the child nodes that are eligible for top-down processing, and (d) generating output results for a child node that is not eligible for top-down processing. The method further includes (e) outputting the output results to a data stream.

The passage of Katz cited in the Office Action relates to XQuery evaluation. This passage of Katz states that

“The presence of an index often prompts the optimizer to choose a so-called bottom-up evaluation strategy, where first indices are used to filter the processed tuples before any of the other operators are evaluated. Since the naïve execution strategy of XQuery is described top-down, an optimizer may produce dynamic errors by reordering the evaluation order that the top-down evaluation strategy would have avoided. A simple example ... [shows that a] comparison will fail with a runtime error that in the naïve evaluation would have been avoided.” Katz, page 384.

Katz teaches only that in some cases, a **bottom-up** evaluation strategy may be selected **based on the presence of an index**, and that this bottom-up evaluation strategy may cause errors. Nowhere does Katz teach or suggest “determining if the child node relates to an operator for which **top-down processing can be performed.**” Furthermore, nowhere does Katz teach or suggest “(c) calling and executing the operators from (a) for the child nodes that are eligible for top-down processing.” As Katz does not teach or suggest these limitations, claim 1 is patentable over the art of record.

Claims 15 and 26-29 contain similar language to claim 1 and are patentable for similar reasons to those discussed above with reference to claim 1. Dependent claims 2-14 and 16-25 depend from independent claims 1 and 15, respectively, and are patentable for at least those reasons discussed above with reference to the independent claims.

CONCLUSION

Based on the foregoing, all claims are now allowable and a Notice of Allowance is respectfully requested. If the Examiner has any questions or comments regarding this amendment, the Examiner is respectfully requested to contact the undersigned at (650) 849-4958. The Commissioner is authorized to credit any overpayment or to charge any underpayment to Bingham McCutchen's Deposit Account No. 50-2518, referencing billing number **7035752001**.

Respectfully submitted,

Bingham McCutchen LLP

Dated: July 24, 2006

By: 

Sarah E. Stahnke
Registration No. 54,854

BINGHAM McCUTCHEN LLP
Three Embarcadero Center
San Francisco, CA 94111
Telephone: (650) 849-4958
Telefax: (650) 849-4800